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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/749,388      | 01/02/2004  | Eldad Taub           | 25306Y              | 9142             |

20529 7590 12/27/2006  
NATH & ASSOCIATES  
112 South West Street  
Alexandria, VA 22314

|          |
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| EXAMINER |
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WILSON, JOHN J

|          |              |
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| ART UNIT | PAPER NUMBER |
|----------|--------------|

3732

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE  | DELIVERY MODE |
|--|------------|---------------|
| 3 MONTHS                               | 12/27/2006 | PAPER         |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/749,388

Applicant(s)

TAUB ET AL.

Examiner

John J. Wilson

Art Unit

3732

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 27-54 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 27-54 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 27-44 and 48-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chishti et al (6471511) in view of Doyle et al (5879158) and Wu et al (5338198). Chishti teaches selecting an initial aligner shape 202, which is an orthodontic component, providing initial teeth positions 302, associating the component with the teeth 340, using a set of rules 220 to model the effect on teeth 230 in order to find an acceptable aligner shape from which the aligner is made. The data used to make the aligner is inherently a prescription. Chishti teaches the method using an embodiment of an aligner shell to move the teeth, and as such, this embodiment does not show selecting a set of components, however, Chishti teaches that the method can be used with brackets and arch wires, column 2, lines 13-22. It would be obvious to one of ordinary skill in the art that, if the method were used with braces as taught, it would require selecting a set of components. Chishti teaches using a display for user input and to show animation of the tooth positions and path, column 4, lines 36-50. Chishti does not specifically state showing images of two or three stages of the method. Doyle teaches a first three-dimensional image 14, 16, selecting a virtual set of components and associating the components with the teeth of the first image, 30, 31 to inherently

form a second image, moving the teeth which form a third image 59, 61, 63. It would be obvious to one of ordinary skill in the art to modify Chishti to include displaying the models at different points in the method as shown by Doyle. The above combination does not show a model being manipulable so as to allow viewing from a desired direction. Wu teaches electronic models that can be viewed from any perspective, column 1, lines 20-25. It would be obvious to one of ordinary skill in the art to modify the above combination to include the function of allowing models to be viewed from different directions as shown by Wu in order to make use of well know computer graphics tool for computer graphics design. Repeating steps and the types of parameters that are changed are obvious matters of choice in duplicating known steps and in well known parameters that will effect a change in the model to one of ordinary skill in the art. As to claims 34 and 35, the alternative of user or automatic input are well known to the skilled artisan. As to claims 39 and 40, the type of database used is an obvious matter of choice in known ways of storing information to one of ordinary skill in the art. As to claims, 41-44, the above combination does not show using tooth extraction as a parameter in the treatment planning. Wu teaches using a tooth extraction, column 9, lines 1-6. It would be obvious to one of ordinary skill in the art to modify the above combination to include the use of the parameter of tooth extraction as shown by Wu in order to make use of the parameters needed in a patient's case. As to claims 48 and 49, to output information obtained by a computer is well known.

Claims 45-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chishti et al (6471511) in view of Doyle et al (5879158) and Wu et al (5338198) as applied to claim 27 above, and further in view of Kopelman (6334853). The above combination does not show using an added tooth as a parameter in treatment planning. Kopelman teaches using an added tooth, column 1, lines 25-30. It would be obvious to one of ordinary skill in the art to modify the above combination to include the use of a known parameter as shown by Kopelman in order to obtain the desired final dentition.

#### ***Terminal Disclaimer***

The terminal disclaimer filed on November 1, 2006 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of any patent that may issue on application Serial No. 11/051,329 has been reviewed and is accepted. The terminal disclaimer has been recorded.

#### ***Response to Arguments***

Applicant's arguments filed November 1, 2006 have been fully considered but they are not persuasive. With respect to the removal of the Chishti et al (6471511) reference, it is noted that the filing date of Chishti '511 is October 8, 1998 which is before the filing date of December 7, 1998 of PCT/IU00593, and as such, qualifies as prior art under 35 U.S.C. 102(e). To rely of foreign priority to remove such a reference, applicant must perfect priority by filing a certified English language translation so that

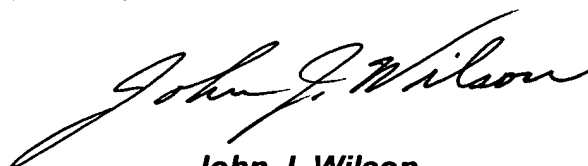
the examiner can establish enablement and description requirements, MPEP 706.02 (E).

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John J. Wilson whose telephone number is 571-272-4722). The examiner can normally be reached on Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cris Rodriguez, can be reached at 571-272-4964. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**John J. Wilson  
Primary Examiner  
Art Unit 3732**